

[illegible]

Work Order ID 97587

97587

Page 2

February-21-13 2:30:06 PM

Item ID: D4148-5

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Eyebolt Stud

Start Date: 2/20/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 3/08/13 Req'd Qty: 12.00

12

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							DAS 08 9.08
120									
QC	Memo	0.00							
Quality Control									
150	Identify as per dwg & Stock Location: _____	0.00							
150									
Packaging	Memo	0.00							
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									

Da 13/02/28

12

φ

143/3/01 (12)

13/3/4

MF 13-3-4

Picklist Print

February-21-13 2:30:06 PM

Page 1

Work Order ID: 97587

Parent Item: D4148-5

Parent Item Name: Eyebolt Stud

Start Date: 2/20/13

Required Date: 3/08/13

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 10-07-22 JLM VERIFIED BY:DD IPP REV:B 11.03.02 AS PER
DWG REV.D DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R1.000		Purchased	No			100	f	31.8903	0.2	2.5263156			
303 Round Bar 1.00													

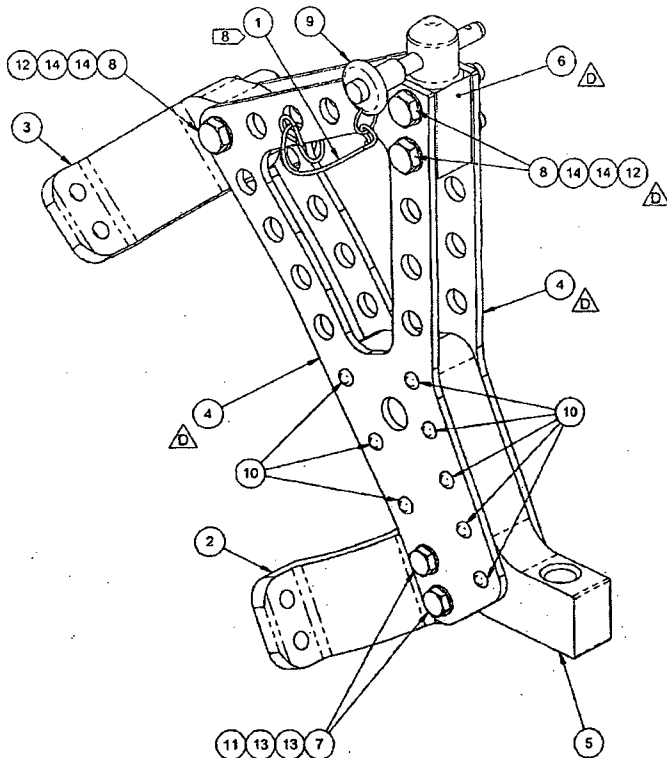
Location	Loc Qty	Loc Code
MAT028	31.89031579	
120866	1.4	
121070	6.63031579	
121282	0.9	
121728	3.034	
122386	14.926	
123294	5	

? 129711

2.5 ft (DAS 13-2-27 289)

FIRST ARTICLE INSPECTION CHECKLIST

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	11.02.11	Dimensions revised per Dwg Rev C	KJ	
C	11.06.21	Dimensions revised per Dwg Rev D	KJ	



D4148-041 FWD X-TUBE LUG ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4148-041" PER DART QSI 044 6.1
- 7) WEIGHT: 3.67 lbs
- 8) ATTACH D2690-6 TO D4148-1 BY LOOPING AROUND A LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4148-041	FWD X-TUBE LUG ASSY
1	1	D2690-6	LANYARD
2	1	D3910-1	X-TUBE LUG
3	1	D4091-1	MOUNTING LUG
4	2	D4148-1	FWD X-TUBE LUG PLATE
5	1	D4148-3	STUD RECEIVER LOWER
6	1	D4148-5	EYEBOLT STUD
7	2	AN3C12A	BOLT
8	3	AN4C13A	BOLT
9	1	MS17984-C413	PIP PIN
10	8	MS20815-4M18	RIVET
11	2	MS21043C3	NUT
12	3	MS21043C4	NUT
13	4	NAS1149C0332R	WASHER
14	6	NAS1149C0432R	WASHER

97587 MJS
13-02-25

RELEASED
2011-02-24

D	HOLE DIA CHANGED TO 0.25" (D6-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, C4-2)	SC	11.02.22
C	REDESIGNED D4148-1/3 TO ADDRESS COMPATIBILITY ISSUES WITH D350-591 SHORT STEPS	MB	10.10.12
B	REPLACED QTY(3) MS20815-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, B7-2 & B4-2); MS20815-4M18 WAS MS20815-4M20 (ZN D3-1 & B7-2); 0.129 1/2 PL REPLACES 0.128 3 PL (ZN D6-3); 0.129 7 PL WAS 10 PL (ZN A7-3); 0.191 WAS 0.129 (ZN C8-5); REASON: SEE TR-D350-607-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.08.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB		
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.02.22		

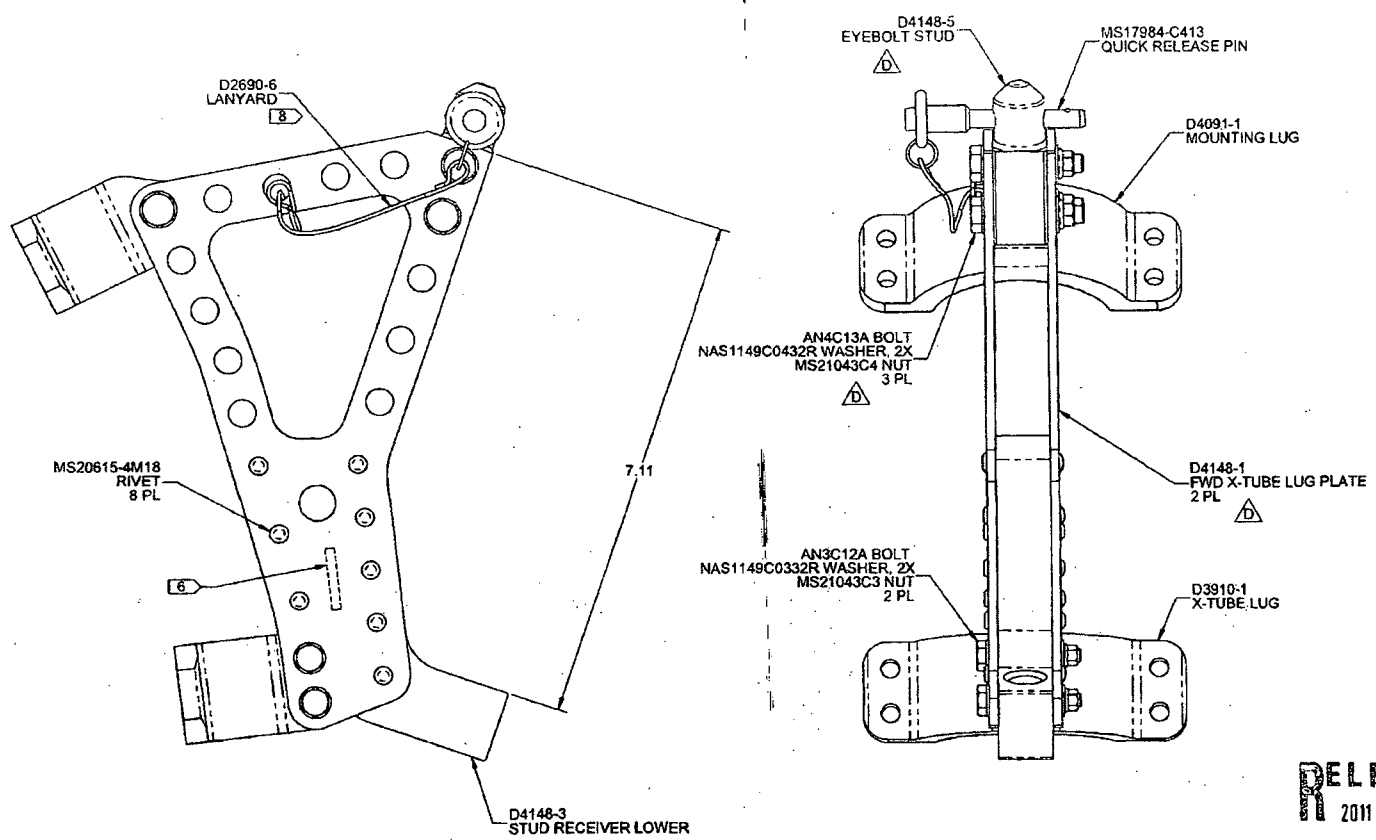
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4148** REV. D
SHEET 1 OF 5

TITLE **FWD X-TUBE LUG ASSY** SCALE NTS

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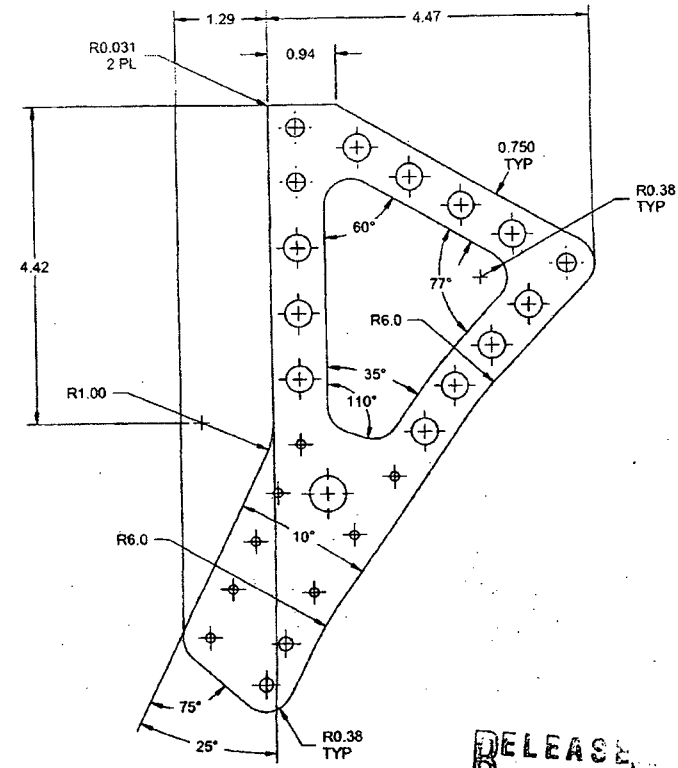
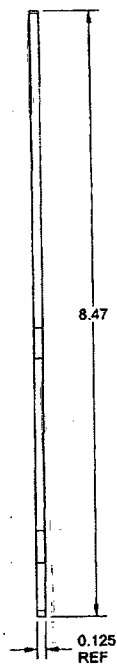
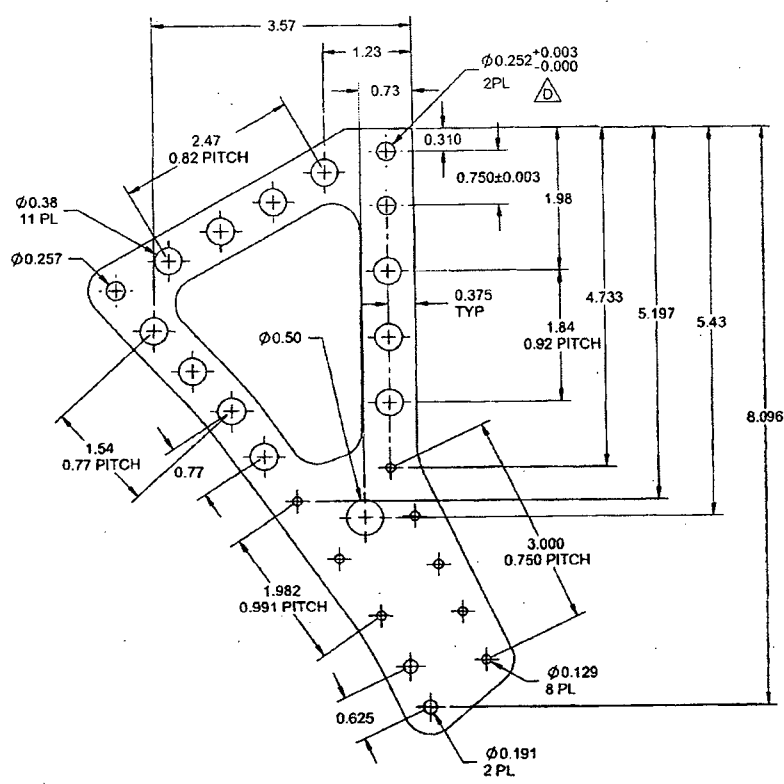
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D4148-041 FWD X-TUBE LUG ASSY

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO. D4148	REV. D
MFG. APPR.			SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
DATE	11.02.22	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.</small>	

7587



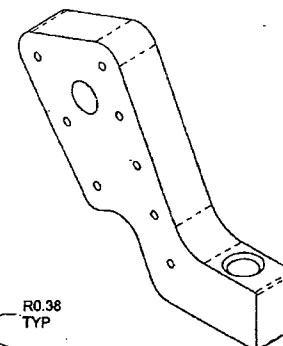
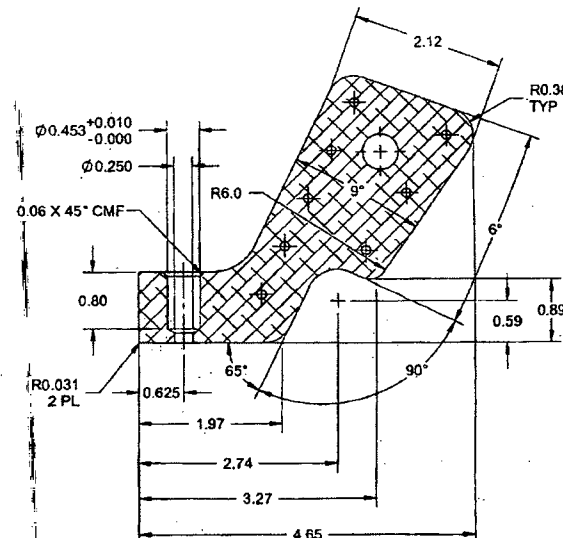
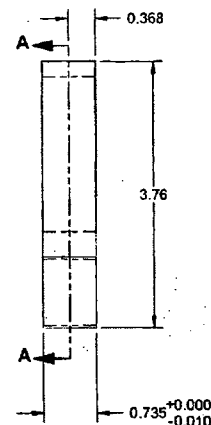
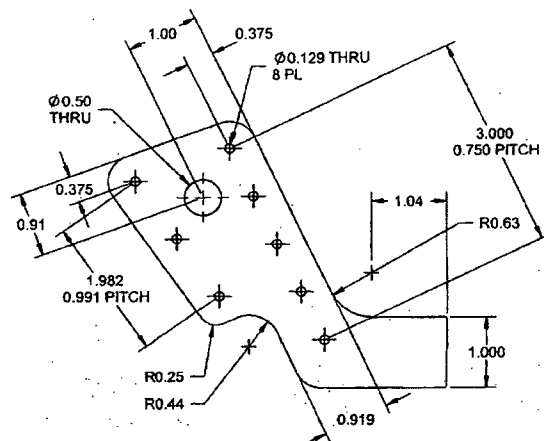
D4148-1 FWD X-TUBE LUG PLATE

RELEASE
2011-02-21
JNP

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET ANNEALED 2B FINISH. PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA OR M303S11GA
 - 2) FINISH: NONE
 - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.52 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4148	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
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17587



D4148-3 STUD RECEIVER LOWER

SECTION A-A

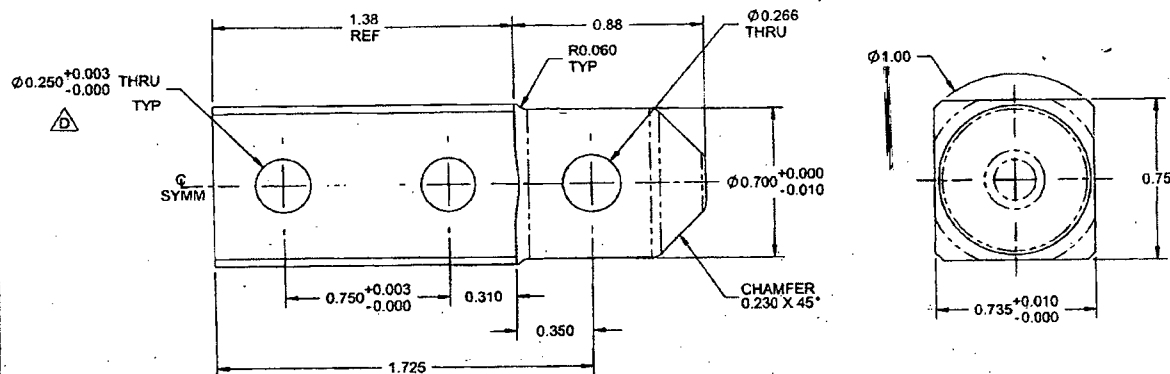
RELEASED
2011-02-24

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276
REF DART SPEC M304B OR M303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.52 lbs

DESIGN	MB	DART AEROSPACE LTD	
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CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4148	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		FWD X-TUBE LUG ASSY	NTS
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D4148-5 EYEBOLT STUD

RELEASED
2011-02-24

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276
REF DART SPEC M304B OR M303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.27 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4148	SHEET 5 OF 5
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DE APPR.		FWD X-TUBE LUG ASSY	NTS
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Receiving Report

Date: 13/2/25
Supplier: MEDIA XCASTLE

Batch No: M64711
Dart P/O: 19108

Packing Slip: Yes ☒ No ☐
Invoice: Yes ☐ No ☒
Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
Waybill Attached: Yes ☒ No ☐ N/A ☐
Shipment Complete: Yes ☒ No ☐ N/A ☐
QC6 Inspection ☒ DAS N/A ☐
Work Order 16 N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M303R0500		76	0	0	76	
M303B25Wx2W	- 12		0	0	12	

Initials of receiver (if shipment OK) Level 12 ☒

Production/Admin: 13/2/25
Date
Received/Costing
Initial

Location _____

Monday, February 25, 2013 2:21:58 PM

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID/Vendor Name		VC-MET001	Metaux Castle								
PO19105	1		M303R0.500	f	2/25/2013	2/25/2013	96.6667	\$1.64	0.0000	0	\$158.14
CAD	No		303 Round Bar	f	96.0000	DESJ02		\$158.14	0.0000	0	
			0.500"								
			124711								
	2		M303R0.313	f	2/25/2013	2/25/2013	12.0833	\$3.16	0.0000	0	\$38.23
	No		303 ROUND BAR	f	12.0000	DESJ02		\$38.23	0.0000	0	
			.313								
			124711								
	3		M303R1.000	f	2/25/2013	2/25/2013	96.6667	\$6.16	0.0000	0	\$595.63
	No		303 Round Bar 1.00	f	96.0000	DESJ02		\$595.63	0.0000	0	
			124711								
										Total Received Quantity:	205.4167
										Total Qty to Inspect (PO U/M):	0.0000
										Total Reject Quantity:	0.0000
										Total Receipt Value:	\$792.00
										Total Balance Due Quantity:	0.0000

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:1650807

Ship From: A. M. Castle & Co. TORONTO - CASTLE METALS 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-2013	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 1650807-2	

Shipment Details	Final Destination Branch - TOR
-------------------------	---------------------------------------

Order No 2703471	Line No 2	Item No 4665	Description 1.0000.RD.303.STAINLESS.CF.ANN.132.0000-156.0000 SPECIFICATIONS: ASTM A582				
Purchase Order No 19105		Part Number		Ordered Qty 96.00 FT		Invoice Qty 96.6667 FT	
Details							
Delivery No. 118428240	Mill NORTH AMERICAN STAINLESS	Heat Number F1T2	Mech Id	PCS 8	Width (IN)	Length (IN) 145.0000	Shipped Qty(LBS) 258.1000

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:



NORTH AMERICAN
STAINLESS

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 807872 24 Mail To:
A.M. CASTLE AND COMPANY
1420 KENSINGTON ROAD-SUITE 220
OAK BROOK IL 60523

Ship To:
A.M. CASTLE AND COMPANY
26800 MILES ROAD
BEDFORD HEIGHTS OH 44146

Date: 2/05/2013 Page: 1 Of 1
Steel: 303
Finish: Cold Finish
Dia/Thk: 1.0000 in
Leg Length:
Length: 144.00 in
Corrosion:

Customer: 0032 005

NAS Order: LN 94552 1

Your Order: 205167

Item Code: 4665

PRODUCT DESCRIPTION:

Round Bar, Annealed, Smooth Turned, Cold Finished
ASTM A582/12 EN 10204 3.1, ASTM A484/11
AMS 5640U TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7014A-1 EU DIRECTIVE
2002.95.EC.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

8/3/12

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BF20226	4547								

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/08

Heat	Supplier #	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
FLT2		US	.044	.13	17.28	.27	1.88	.27	.044	8.44	.032	.3360
SI %												
			.55									

MECHANICAL PROPERTIES

1 d o i F F	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D	
BF20226	R L	202.0	79.57	112.42	38.90	22.85

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS

Technical
Dept. Mgr.

ERIC HESS



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19105

Purchase Order Date 2/15/13

PO Print Date 2/15/13

Page Number 1 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W OE9
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 694 9575

514 695 3281

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
11/13/03/13

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M303R0.500	303 Round Bar 0.500"	2/25/13 Yes	✓ 96.00 f 96.6667	Yours ppd	\$1.6700	\$160.32
Special Inst:			MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
2	M303R0.313	303 ROUND BAR .313	2/25/13 Yes	✓ 12.00 f 12.4633	Yours ppd	\$3.2300	\$38.76
Special Inst:			MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE				
3	M303R1.000	303 Round Bar 1.00	2/25/13 Yes	96.00 f 96.6667	Yours ppd	\$6.2900	\$603.84

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required - YES NO

Change Nbr: 1

Change Date: 2/15/13



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19105

Purchase Order Date 2/15/13

PO Print Date 2/15/13

Page Number 2 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W OE9
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 694 9575

514 695 3281

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Special Inst:

MATERIAL: AISI 303 SS ROUND BAR AS
PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

4

M303B2.500X2.000

303 BAR 2.5" X 2"

3/05/13

Yes

12.00 Yours ppd

f

\$127.6200

\$1,531.44

Special Inst:

MATERIAL: AISI 303 SS BAR AS PER
ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

PO Total:

\$2,334.36

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

No substitution or deviation without
consent.

Certificate of Conformity or Material
Certification required - YES NO

Change Nbr:

1

Change Date: 2/15/13